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10/659,078	09/10/2003	Markus Gehrig	P/4303-30	2740

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EXAMINER

ZIMMERMAN, JOHN J

ART UNIT PAPER NUMBER

1775

DATE MAILED: 04/26/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

SA

**Office Action Summary**

Application No.

10/659,078

Applicant(s)

GEHRIG ET AL.

Examiner

John J. Zimmerman

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**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --****Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 32-48 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 32-43 and 48 is/are rejected.
- 7) ☒ Claim(s) 44-47 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 10 September 2003 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☒ Certified copies of the priority documents have been received in Application No. 10/049,097.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date 20030910.
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_.

## **FIRST OFFICE ACTION**

### ***Priority***

1. Acknowledgment is made of applicant's claim for foreign priority under 35 U.S.C. 119(a)-(d). The certified copy has been filed in parent Application No. 10/049,097, filed on February 5, 2002.

### ***Information Disclosure Statement***

2. The information disclosure statement filed with this application has been considered. An initialed form PTO-1449 is enclosed with this Office Action.

### ***Specification***

3. The disclosure is objected to because of the following informalities: It is suggested that applicant amend the specification to insert headings at their appropriate locations (e.g. Brief Description of the Drawings, Detailed Description of the Invention, etc. . .). Appropriate correction is requested.

### ***Drawings***

4. Figures 2, 3 and 11 should be designated by a legend such as --Prior Art-- because they appear to illustrate the prior art. See MPEP § 608.02(g). A proposed drawing correction or

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corrected drawings are required in reply to the Office action to avoid abandonment of the application. The objection to the drawings will not be held in abeyance.

***Preliminary Amendment***

5. The Preliminary Amendment filed in this application has been entered. Claims 1-31 have been cancelled. Claims 32-48 are pending in this application.

***Claim Rejections - 35 USC § 102***

6. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(a) the invention was known or used by others in this country, or patented or described in a printed publication in this or a foreign country, before the invention thereof by the applicant for a patent.

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

7. Claims 32-34, 36 and 38 are rejected under 35 U.S.C. 102(b) as being anticipated by Stamm (U.S. Patent 4,238,878).

8. Stamm discloses a section comprising section walls which delimit a hollow space, two of the section walls being arranged to define each corner region of a cross-section of the section, at least one of the section walls at the corner region having a region that is curved in cross-section (e.g. see Figure 2). The hollow section is shaped in this manner so that it expands into a

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rectangular cross-sectional shape upon the application of inner pressure (e.g. see column 3, lines 28-50). The inner and outer tubes may be steel or aluminum (e.g. see column 2, lines 56-67).

9. Claims 32-36 and 38 are rejected under 35 U.S.C. 102(b) as being anticipated by IBM (IBM Technical Disclosure Bulletin, August 1978, US, Vol. 21, Issue No. 3, page no. 980-981, cross reference 0018-8689-21-3-980).

10. IBM discloses a section comprising section walls which delimit a hollow space, two of the section walls being arranged to define each corner region of a cross-section of the section, at least one of the section walls at the corner region having a region that is curved in cross-section (e.g. see "Typical Shape Extrusion" in the drawings; see disclosure text at fourth paragraph for "hollow metallic extrusion 10" and sixth paragraph for "Although the extrusion 10 shown is four-sided, it is understood that it may have three, five or any other number of sides").

11. Claims 32-36 and 38-39 are rejected under 35 U.S.C. 102(b) as being anticipated by Vahey (U.S. Patent 5,379,567) or Conroy (GB 2308565).

12. Vahey discloses a section comprising section walls which delimit a hollow space, two of the section walls being arranged to define each corner region of a cross-section of the section, at least one of the section walls at the corner region having a region that is curved in cross-section and wherein the section cross-section is triangular and the curved regions are partial circles (e.g. see Figures 3-5). Conroy discloses an extruded aluminum section comprising section walls

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which delimit a hollow space, two of the section walls being arranged to define each corner region of a cross-section of the section, at least one of the section walls at the corner region having a region that is curved in cross-section and wherein the section cross-section is triangular with flanges and the curved region appears to be a partial circle (e.g. see Figure 1).

13. Claims 32-34, 36 and 38-39 are rejected under 35 U.S.C. 102(b) as being anticipated by Lin (U.S. Patent 5,379,567).

14. Lin discloses a section comprising section walls which delimit a hollow space, two of the section walls being arranged to define each corner region of a cross-section of the section, at least one of the section walls at the corner region having a region that is curved in cross-section and wherein the curved regions are arcuate (e.g. see prior art Figure 1).

15. Claims 32-34, 36, 38-39 and 42-43 are rejected under 35 U.S.C. 102(b) as being anticipated by Loewe (German Offenlegungsschrift 2727448).

16. Loewe discloses a section comprising section walls which delimit a hollow space, two of the section walls being arranged to define each corner region of a cross-section of the section, at least one of the section walls at the corner region having a region that is curved in cross-section in what appears to be a partial circle or partial ellipse (e.g. see Figure 2). The curvature has an arc length determined by a distance between flanges of delimiting adjacent corner regions. Regarding claim 43, the dimensions are dependent on variables of a future processing to an

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undisclosed "intended final section configuration". The examiner notes that the configuration of Loewe would be capable of meeting the dimension requirements of some final products if subjected to the same processing. When there is a substantially similar product, as in the applied prior art, the burden of proof is shifted to the applicant to establish that their product is patentably distinct not the examiner to show that the same process of making, see *In re Brown*, 173 U.S.P.Q. 685, and *In re Fessmann*, 180 U.S.P.Q. 324.

17. Claims 32-34, 36-39 and 41 are rejected under 35 U.S.C. 102(b) as being anticipated by D'Alessio (U.S. Patent 4,481,748).

18. D'Alessio discloses a section comprising section walls which delimit a hollow space, two of the section walls being arranged to define each corner region of a cross-section of the section, at least one of the section walls at the corner region having a region that is curved in cross-section and wherein the curved regions are arcuate and have thickened regions at the corners (e.g. see part 52a in Figure 14). The sections can be extruded aluminum parts and the use of aluminum alloys is also disclosed (e.g. see column 1, lines 15-43; column 7, line 14).

### ***Claim Rejections - 35 USC § 103***

19. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

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20. Claims 39, 40 and 48 are rejected under 35 U.S.C. 103(a) as being unpatentable over Stamm (U.S. Patent 4,238,878) in view of Mollon (U.S. Patent 4,143,276).

21. Stamm discloses a section comprising section walls which delimit a hollow space, two of the section walls being arranged to define each corner region of a cross-section of the section, at least one of the section walls at the corner region having a region that is curved in cross-section (e.g. see Figure 2). The hollow section is shaped in this manner so that it expands into a rectangular cross-sectional shape upon the application of inner pressure (e.g. see column 3, lines 28-50). The inner and outer tubes may be steel or aluminum (e.g. see column 2, lines 56-67). Regarding claim 48, Stamm may not specify that the light metal "aluminum" is made by an extrusion process, but when there is a substantially similar product, as in the applied prior art, the burden of proof is shifted to the applicant to establish that their product is patentably distinct not the examiner to show that the same process of making, see *In re Brown*, 173 U.S.P.Q. 685, and *In re Fessmann*, 180 U.S.P.Q. 324. In addition, Stamm may not require that the aluminum is an aluminum alloy. The examiner notes, however, that unless the use of pure aluminum is necessary to the function of an article, the use of the term "aluminum" in the art is generally understood to include the use of aluminum and its alloys. Alloys of aluminum are understood by those of ordinary skill in the art to be an obvious alternative to pure aluminum because aluminum alloys can be tailored for better corrosion resistance, better economics and vastly superior structural and forming properties than pure aluminum. In any event, Mollon specifically shows that the use of aluminum alloys was understood by those skilled in the art to be suitable for



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shrouds (e.g. see column 4, line 29). In view of Mollon, it would have been obvious to one of ordinary skill in the art at the time the invention was made to use aluminum alloys as the materials of the aluminum tubes in Stamm's shroud because Mollon clearly shows that aluminum alloys are suitable as the aluminum tube compositions used in shrouds. Regarding claims 39 and 40, Stamm discloses that the concave shapes of the side walls serve to help the hollow section expand into a rectangular cross-sectional shape upon expansion by internal pressure. It appears that any one of the terms "partial circle", "partial ellipse", "parabola shaped" or "hyperbola shaped", may be used to roughly describe the shape of the walls shown in Stamm's Figures 2 and 8. In any event, in view of the fact that Stamm clearly discloses that the curvature of the sides of the hollow section is tailored to result in the final shape of the rectangle, it would have been obvious to one of ordinary skill in the art at the time the invention was made to optimize the curve of the walls so that they most closely fit the final shape upon expansion. Selection of specific curve shapes to result in the final wall shape upon expansion would be a mere matter of trial and error.

22. Claims 39 and 40 are rejected under 35 U.S.C. 103(a) as being unpatentable over IBM (IBM Technical Disclosure Bulletin, August 1978, US, Vol. 21, Issue No. 3, page no. 980-981, cross reference 0018-8689-21-3-980).

23. IBM discloses a section comprising section walls which delimit a hollow space, two of the section walls being arranged to define each corner region of a cross-section of the section, at least one of the section walls at the corner region having a region that is curved in cross-section

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(e.g. see "Typical Shape Extrusion" in the drawings; see disclosure text at fourth paragraph for "hollow metallic extrusion 10" and sixth paragraph for "Although the extrusion 10 shown is four-sided, it is understood that it may have three, five or any other number of sides"). Regarding claims 39 and 40, IBM discloses that the concave shapes of the side walls serve to allow for pointed corners which insure good connections. It appears that any one of the terms "partial circle", "partial ellipse", "parabola shaped" or "hyperbola shaped", may be used to roughly describe the shape of the walls shown in IBM's drawings. In any event, in view of the fact that IBM clearly discloses that the curvature of the sides of the hollow section is tailored to result sharper corners, it would have been obvious to one of ordinary skill in the art at the time the invention was made to optimize the curve of the walls so that they result in sharp corners while still allowing insertion of the extrusion into the holes in the structure. Selection of specific curve shapes to best result in these goals would be a mere matter of trial and error.

*Allowable Subject Matter*

24. Claims 44-47 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims. While the prior art is replete with hollow sections having the various requirements of the rejected claims, the dimensions and relationships required by claims 44-47 are not taught or made obvious by the art of record. Since there is no motivation to modify the references to meet these dimensions and relationships, and because applicant discloses that these dimensions and relationships have function, these claims are not rejected in this Office Action.

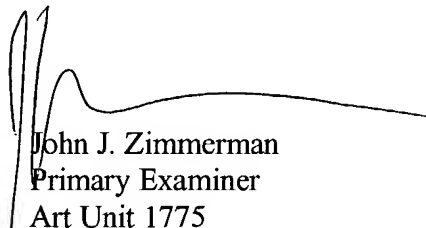
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***Conclusion***

25. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. The additionally cited references are cited to further establish the level of ordinary skill in the art at the time the invention was made.

26. Any inquiry concerning this communication or earlier communications from the examiner should be directed to John J. Zimmerman whose telephone number is (571) 272-1547. The examiner can normally be reached on 8:30am-5:00pm, M-F. Supervisor Deborah Jones can be reached on (571) 272-1535. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

27. Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

  
John J. Zimmerman  
Primary Examiner  
Art Unit 1775

jjz  
April 12, 2004